**Some concepts relevant to the environmental problems assignment but may not not be clearly identified in the assigned readings:**

1. ***Behavior is influenced by the consequences of it*.** Reinforcers increase a behavior; punishment may decrease a behavior under certain conditions. Reinforcers and punishments may be “cognitive” and perceived as possible in the future based on one’s values, beliefs and information accepted as credible.
2. ***Delayed and uncertain consequences of behavior (either rewards or punishments) are less powerful than immediate consequences*.**
3. ***“Green taxes” or "carbon taxes" apply behavioral conditioning principles to environmentally relevant behaviors*** such as the way we use energy and other resources. It is not proposed as a new additional tax, but rather a restructuring of how we tax. We currently have uniform sales taxes for items purchased, and taxes on individual income. We cold re-structure how we tax by placing higher taxes on products that are more environmentally destructive and inefficient in use of resources, and subsidizing (lowering the cost to purchase) products are sustainable, efficient in resources use, and cause little pollution. Paying more for a product through a tax will decrease use of it; paying less for a product than it costs to produce by applying a subsidy to the buyer will increase use of it. In the environmental problems literature this is referred as “green tax” and was strongly advocated by former Vice-President and Presidential candidate Al Gore. Those of us who dislike government intervention in the economy greatly dislike this idea and say the market will adjust when products become scarce. Environmentalists say the best scientific information indicates that it may be too late to prevent catastrophic global warming and ecosystem collapse by the time we experience shortages that influence market prices. They advocate “green taxes” to shape our behavior now, before it is too late. Rush Limbaugh calls such people “environmental wackos”.
4. ***“Barriers to behavior” can prevent one from performing the behavior even though it may be desirable.*** For example, one may want to have a really good, healthful meal, but the cost of it in a restaurant or the time and skills required to make it at home may cause the individual to forego such a fine meal and open a can or go to a fast food restaurant. The time, expense, and skills required are potential barriers to eating healthy and tasty. In addition, one’s dietary habits may shape the reinforcement power of the healthful meal vs. the cheap, fast meal. Some of us will be determined overcome bigger barriers to eat healthily because we have learned to attribute great value to it, and some of us are easily deterred by any barrier to cheap, fast, and easy meals because we do not attach high value to the nutrition value of the food we eat. A barrier to recycling might be inconvenience. Some of us place a high value on recycling and will overcome greater barriers to it than others will who see little value in recycling. The value placed on recycling is learned, just as diet is. The value is derived from perceived consequences in the distant future being related to one’s individual behavior today.
5. ***“Discounting the future” means that an individual will do something today because it is cheaper or easier or desired today even though it will have greater cost in the future.*** For example, I might purchase a fine computer for $2000 by putting on my credit card. Making minimum payments on my credit card might have me paying $4000 over time for that computer. I have made a “discount on the future” in order to get the computer now. Throwing away an aluminum can will cost 10 times the electricity to produce a new one over recycling the aluminum for that can. If I do not know the ecological cost of producing electricity, or do not value ecological health, or do not believe my actions have any importance for future human well-being, or do not care about future human well-being, I will not see the reinforcement value of carrying my can until I can recycle it. I will throw in the garbage and have an explanation to justify my actions like “One can is not going to ruin the world”, or I am just one person and I am not going to make myself miserable over a can when everybody else wastes so much more than me.
6. ***“Security anxiety” describes the apprehension we feel when we believe that our future well-being is threatened by some action, inaction, group activity/agenda, or trend.*** For example, we are concerned about new terrorist acts in this country if we do not make our airlines safe and make it difficult for terrorists to enter to the country. This “security anxiety” has led us to accept significant changes in airport and border security that have inconvenienced us and cost lots of tax dollars. Most of us accept that the threat is real and expect our government to take the led in designing programs that will protect us from the threat. The “greenhouse effect” also raises security anxiety for some of us, and some groups have advocated ways to reduce the threat by reducing the burning of fossil fuels. Not everyone accepts the reality of this threat and the need to change our behavior regarding the use of fossil fuels because they may disregard the data upon which it is based or believe solutions to the threat will appear somehow that make changing our behavior unnecessary. Groups and governments frequently use “security anxiety” to motivate citizens to behave in a certain fashion or support/oppose certain policies. Citizens needs ways of assessing the validity of the data cited about the reality of the threat and the behaviors needed to avert it.
7. ***A “cognitive-behavioral map” exists in our mind*** that guides us through our days with maps of behaviors that lead to reinforcers and punishments, the barriers that exist, the value we place on the reinforcers, and the probabilities of our performing behaviors successfully and actually getting the reinforcers. You do this when planning you college education by assessing which courses to take, how to succeed in them, what to avoid, and the potential for your success in college and future career compared to the expenses and effort required to get through college. If the perceived reinforcement value of the college degree and career are high enough, and you belief you can succeed get the rewards in the end, you do it. If you have a faulty cognitive map about all this, you may make poor decisions and not get where you wanted to go. An example of this would be believing that attendance is not important in class and not pay attention to the points for attendance in some classes. This error in not paying attention to valid information could be costly and jeopardize success. It is not reality that determines our behavior, it is our perception of reality. The cognitive-behavioral map is our representation of reality in our mind that we use to decide upon the behaviors to perform that seem most likely to lead us to our desired outcomes.
8. ***We are consuming and polluting far beyond the earth’s ecosystems’ ability to sustain themselves in the long run.*** Americans’ and Canadians’ percentage of the world’s consumption of energy and other resources, and consequent pollution, greatly exceeds the percentage of the two countries’ percentage of the world’s population.
9. ***Global warming is occurring at a faster rate than ever seen in the earth’s geologic record*** due to human production of greenhouse gases from the burning of fossil fuels such as oil, coal, and natural gas. Global warming threatens 50% of the human population that lives near oceans due to rising ocean levels, agriculture’s ability to produce food, and ecosystems’ ability to remain viable. Human well-being is dependent upon healthy ecosystems to maintain a life-supporting atmosphere and climate, and to produce renewable resources including food.
10. ***The dominant worldview of North Americans*** is that our level of resource consumption and pollution are normal and necessary, that they have a right to use the earth’s resources as they wish, and that other species’ well-being is not very relevant to human well-being. They also tend to believe that they cannot decrease their consumption without suffering a reduction in their quality of life, and that a solution will be found to any significant problem that does emerge.
11. ***We can greatly reduce our current levels of energy and resource consumption*** without lowering our quality of life by more quickly utilizing existing technology in energy efficiency and recycling, but these newer approaches are usually more expensive and /or inconvenient to use. We could develop even less environmentally destructive technologies and products with more emphasis placed on such development in form of government subsidy to hasten their delivery to the markets for us. If combined with a pricing structure that makes them cheaper than more destructive products and methods, we could greatly decrease North Americans’ impact on world energy and resource use, and pollution.